

What is claimed is:

1. A semiconductor light emitting element comprising, as a lamination structure:

an insulating substrate;

GaN-based stacked films stacked/formed on said insulating substrate, one of these films being a GaN-based film grown by using a selective growth mask material layer containing a fluorescent substance for converting an ultraviolet light to a visible light; and

an active layer, formed on the GaN-based stacked films, for emitting at least an ultraviolet light component.

2. The semiconductor light emitting element according to claim 1, further comprising a protective film containing the fluorescent substance on a topmost layer.

3. The semiconductor light emitting element according to claim 1 wherein said light emitting layer includes an $\text{Al}_x\text{In}_{1-x}\text{N}$ ($0 \leq x \leq 0.1 \leq y \leq 1$) film, or a $\text{B}_z\text{Ga}_{1-z}\text{N}$ ($0 \leq z \leq 1$) film.

4. The semiconductor light emitting element according to claim 1 wherein the selective growth mask material layer containing said fluorescent substance is formed in a stripe shape.

5. The semiconductor light emitting element according to claim 1 wherein the selective growth mask material layer containing said fluorescent substance is formed in a grid shape.

6. The semiconductor light emitting element according to claim 1 wherein the selective growth mask material layer containing said fluorescent substance is formed in a polka-dot pattern.

7. The semiconductor light emitting element according to claim 1, further comprising a lens formed on a back surface side of said insulating substrate.

8. The semiconductor light emitting element according to claim 1 wherein a thickness of the mask layer containing said fluorescent substance is in a range of 50 nm to 20 μ m.

9. A manufacturing method of a semiconductor light emitting element, comprising:

a step of forming a stack of a GaN-based semiconductor layer on an insulating substrate, said step comprising steps of using a fluorescent substance for converting an ultraviolet light to a visible light or a coat material containing the fluorescent substance as a base material to partially stack a mask material for selective growth and using the mask material layer to grow a GaN-based film; and

a step of stacking an active layer for emitting at least the ultraviolet light on this GaN-based semiconductor layer stack.

10. The manufacturing method of the semiconductor light emitting element according to claim 9 wherein the step of stacking said mask material comprises a step of supplying the mask material containing said fluorescent substance together with a solvent, and evaporating a solvent component in the vicinity of 500°C to obtain the mask material.

11. The manufacturing method of the semiconductor light emitting element according to claim 9 wherein the mask material containing said fluorescent substance is supplied together with an inorganic binder, heated/sealed and obtained.

12. The manufacturing method of the semiconductor light emitting element according to claim 11 wherein the inorganic binder is silicon oxide.